CLAIMS

What is claimed is:

1. A windmill apparatus comprising:

   windmill means mounted to a windmill shaft to rotate said shaft in response to air flow through said windmill means; the windmill further comprising multiple pairs of windmill blades.

2. The windmill apparatus of Claim 1 wherein multiple hubs are provided on said windmill shaft and the multiple pairs of blades are attached to multiple hubs on said windmill shaft.

3. The windmill apparatus of Claim 1 wherein the blades of each pair of windmill blades are interconnected with braces.

4. The windmill apparatus of Claim 1 wherein the windmill shaft is connected to a machine to provide motive power to said machine.

5. The windmill apparatus of Claim 4 wherein the machine is an air propelled vehicle, comprising:

   an air propulsion means to propel said vehicle;

      said air propulsion means having a source of power to drive the air propulsion means;

   a power transfer means engaging said source of power;

   a first clutch means for engaging said power transfer means in a selected condition;

   and said windmill means provides enhanced propulsion to said vehicle when engaging said first clutch means in said selected condition.

6. The vehicle described in Claim 5 further comprising:

second clutch means coacting with said source of power to disengage said source of power from driving said propulsion means when said windmill means provides propulsion which exceeds that of the source of power.

7. The vehicle of Claim 5 wherein the multiple pairs of blades are attached to multiple hubs in said windmill means.

8. The vehicle of Claim 5 wherein the blades in each pair of windmill blades are interconnected with braces.

9. The vehicle of Claim 5 wherein the air propulsion means comprises a propeller.

10. The vehicle of Claim 5 wherein the air propulsion means comprises two propellers.

11. The vehicle of Claim 5 wherein the source of power is a motor.

12. The vehicle of Claim 5 where the power transfer means is a shaft.

13. The windmill apparatus of Claim 4 wherein the machine is a compressor apparatus comprising:

multiple double-acting piston/cylinder means each having a piston operating within a cylinder to compress air upon movement of the piston within the cylinder;

each of said cylinders having a piston shaft connected to said piston therein; said piston shaft extending from said cylinder;

drive means connecting said piston shafts to said windmill shaft to drive said piston shafts in response to rotation of said windmill shaft; and

conduit means connected to the piston/cylinder means to permit the flow of air into said cylinders to receive compressed air from said cylinders.

14. The windmill compressor apparatus of Claim 13 further comprising positioning the multiple double-acting piston/cylinder means such that the cylinders are radially space

from one another.

15. A windmill compressor apparatus as set forth in Claim 13 wherein said cylinders are of different diameters.

16. The windmill compressor apparatus of Claim 15 wherein pressure relief valves are disposed in discharge lines exiting said cylinders of different diameters.

17. The windmill compressor apparatus of Claim 16 wherein the pressure relief valve for the cylinder with the largest diameter is set to be actuated at a pressure which is less than the pressure relief valve for the cylinder with the smaller diameter.

18. The windmill compressor apparatus of Claim 13 wherein the drive means comprises a crank arm attached to the windmill shaft to rotate therewith; said crank arm having a portion thereof connected to the piston shafts to rotate said piston shafts, thereby withdrawing and inserting the shafts with respect to the cylinders to compress air.

19. The windmill compressor apparatus of Claim 13 wherein the crank arm has a portion thereof opposite to the end which is connected to the piston shafts, which portion acts as a counterbalance to the pistons.

20. The windmill compressor apparatus as in Claim 13 further comprising multiple pairs of windmill blades.

21. The windmill compressor apparatus of Claim 20 wherein the multiple pairs of blades are attached to multiple hubs on said windmill shaft.

22. The windmill compressor apparatus of Claim 21 wherein the blades in each pair of windmill blades are interconnected with braces.

23. A method of enhancing the performance of a windmill by providing said windmill with blades arranged in pairs.